from medical care interventions than from primary preventive policy measures. Gender and ethnic differences in amenable mortality were also observed, calling attention to issues of socioeconomic equities to be addressed in the financing and delivery of health care.

PMDH6

AN ECONOMIC EVALUATION OF PHARMACEUTICAL COST CONTAINMENT POLICIES IN ALBERTA, CANADA

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OBJECTIVE: To perform a policy impact analysis of pharmaceutical cost containment strategies implemented by a third party payer (ministry of health (MOH)), in the province of Alberta, Canada, during the 1990s. **METHODS:** A retrospective, pre-post policy intervention regression-based time trend analysis of seniors' prescription drug expenditures between July 1992 and September 1999 was used for the evaluation. All seniors (aged 65 and older) in Alberta are eligible for publically subsidized prescription drug coverage. The policies included the introduction of least cost alternative (LCA) pricing for interchangeable drug products, pharmacy reimbursement changes, an increase in the co-payment rate by seniors from 20% to 30%, and the introduction of a maximum co-payment cap of $25 per prescription. Policies were primarily evaluated from the societal perspective, and economic re-distributional consequences were also examined. **RESULTS:** Total drug expenditures for 1999 were approximately Can$230 million (M) for the 300,000 eligible beneficiaries (seniors) in Alberta. The LCA and pharmacy reimbursement policies reduced overall societal costs by approximately 10%, or Can$21.3M in 1999 (95% CI 7.4M–34.5M); the ministry saved Can$18.1M (95% CI 7.0M–29.2M) and out-of-pocket costs to seniors were reduced Can$3.6M (95% CI 0.2M–7.0M). An increase in the coinsurance rate and introduction of a maximum cap did not significantly decrease total drug expenditures, but the MOH realized significant savings of Can$18.0M (95% CI 4.6M–31.3M) while drug costs to seniors increased by Can$10.2M (95% CI 6.0M–14.3M) in 1999. **CONCLUSION:** The LCA and pharmacy reimbursement restructuring policies were effective in significantly decreasing overall drug costs to society. The increase in the co-insurance rate and introduction of a cap resulted in significant savings for the ministry but was achieved by shifting costs to seniors, raising issues of access and equity.

PMDH7

INTERNATIONAL COMPARISON OF PHARMACOECONOMIC GUIDELINES: CONSENSUS, DIVERGENCE AND PRACTICAL IMPLICATIONS

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A number of countries have developed pharmacoeconomic (PE) guidelines for three objectives: regulatory requirements, standardization of methods, implementation of Good PE Practice. At least 18 countries have issued such guidelines. **OBJECTIVES:** To compare and contrast existing guidelines for their usefulness and relevance for the practising health economist. Specifically, we aimed to highlight areas of agreement and dissent, and identify issues with practical implications in the different countries. **METHODS:** Existing documents were reviewed, analyzed, and a comparison undertaken. The following topics were considered when reviewing the documents: (1) objective (pricing and reimbursement, formulary inscription, state of the art), (2) degree of precision and prescription, (3) international consensus and (4) divergence (type of analyses, comparator, perspective, costing and implementation). Within each topic, issues addressed by the countries have been identified, and any recommendations promulgated have been compared. **RESULTS:** According to the degree of guideline prescription, three groups of countries can be identified: "soft" guidelines including countries such as Finland and Belgium; "moderate" guidelines such as Canada and Denmark and "strict" guidelines such as Australia and the Netherlands. For a number of issues, recommendations are consistent between the countries. For example, all national documents recommend that a societal perspective should be adopted and economic data should be described in both natural and monetary units. By contrast, there is a lack of consensus concerning costing. **CONCLUSIONS:** This work indicates that collaboration across countries and between sponsors, researchers and decision-makers is essential to reach an optimal degree of agreement and to perform convincing and useful studies. When designing an international PE study, it is essential to take into account local guideline requirements as they may lead to practical implications.

PMDH8

DO DECISION-MAKERS FIND ECONOMIC EVALUATIONS USEFUL? RESULTS OF FOCUS GROUP RESEARCH IN THE UK

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OBJECTIVE: To investigate the usefulness of published economic evaluations to health authority decision-makers in the UK National Health Service. **METHODS:** Focus group discussions were conducted in two health authorities. In a preliminary meeting in both authorities, groups of decision-makers were (i) asked general questions about their needs for economic evidence in the process of resource allocation and (ii) invited to specify topics for which they would find economic evidence useful. Prior to a second meeting the NHS Economic Evaluation Database (NHS EED) was searched to identify critical reviews (structured abstracts) of studies pertaining to the topics. At the second meeting the specific and general usefulness of the abstracts was discussed and suggestions for improvements made. **RESULTS:** A total of 237 abstracts were identified, relating to the 20 topics specified by the decision-makers. The number of relevant abstracts per topic ranged from 0 to 32. Although a minority of abstracts provided information of direct relevance to the decision-makers' original questions, the main uses were more general, in identifying issues for further study and providing information relevant to other questions. The main suggestions for improvement in the published literature and the structured abstracts were to (i) increase the generalizability of studies (ii) to address broader topics and (iii) to develop a quality scoring system for economic evaluations. **CONCLUSIONS:** The current published literature in economic evaluation is of use to decision-makers, but more attention needs to be given to understanding decision-makers' needs and to the quality and generalizability of studies.

PMDH9

ATLAS OF AVOIDABLE DEATHS IN ITALY

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OBJECTIVES: to prepare a map of avoidable deaths in Italy and to estimate the years of life lost (YLLs) for a number of pathologies. **METHODS:** mortality was calculated from data provided by the national statistic office (ISTAT) for the year 1994. Causes of death were grouped into 37 principal categories. All mortality rates are expressed as deaths/100,000 inhabitants, and were standardized by age and sex using the "direct" method. The standardized mortality rate (SMR) was also calculated, along with the estimate of the number of YLLs for each cause of avoidable death, using ISTAT life expectancy tables. The various causes of death were then grouped into 3 different categories (deaths avoidable exclusively with primary prevention intervention, avoidable with timely diagnosis and appropriate therapy, avoidable with a mix of prevention and therapy). **RESULTS:** data were used to draw maps describing unhomogeneous avoidable death rates and number of YLLs in different pathologies. For instance, the mortality rate due to hypertension and cerebrovascular accidents showed a higher value (about two-fold) in Southern Italy than in Northern Italy; again, the mortality rate of myocardial infarction showed a higher value (about 1.5 times) in the Northern-East regions than in Southern regions. Furthermore, it appears that in Northern part of Italy avoidable deaths, in terms of YLLs, are especially due to the lack of primary prevention interventions (i.e. mainly due to life style and environmental factors), while in Southern Italy avoidable deaths due to lack of timely diagnosis and appropriate treatment are higher than in Northern Italy. **CONCLUSION:** our data reflect different levels of health care existing among the different Italian regions. This could represent the starting point for improving the quality and the equity of the National Health System.

PMDH10

REIMBURSED DRUG REGULATION: COMPARING TWO MODELS FOR CONTROL DRUGS CONSUMPTION IN ISRAEL USING PERMEATION COEFFICIENT PARAMETER.

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OBJECTIVE: Comparison of different drug regulation systems for drugs administered in hospitals and paid by community held budget: 1) authorization of drug prior initiation of treatment b) setting clear guidelines for authorization and reimbursement after treatment has been started. **METHOD:** Drug consumption of individual drugs that are controlled was compared before and after reimbursement using the DPC model. The DPC is defined as cost of individual drug (or pharmacological group) for one year divided by the total drug budget of the HMO. The DPC was calculated for both regulatory systems for the reimbursed drugs in 1998 and 1999. **RESULTS:** Every year the National Health Insurance Law is updated by adding new drugs and guidelines for reimbursement. Each drug budgeted by the estimated number of patients to be treated for specific indication. According to the law, HMO's may set limitations to control drug consumption such as pre-authorization for specific indications. Sixteen drugs were budgeted at December 1997. DPC of these drugs between 1998 to 1997 and between 1999 to 1998 was 1.37 and 1.33 respectively. The results showed that the update process increased consumption and reached to the plateau stage early then expected. However, different behavior was observed with thirty-eight drugs budgeted at March 1999. DPC of these drugs between 1998 to 1997 and between 1999 to 1998 was found to 1.39 and 1.63 respectively. For 2000 the forecasted DPC is 1.89. In the two mentioned updating, drug regulation was always done before beginning the treatment. In 2000, Trastuzumab was budgeted setting clear guidelines and the control of the HMO's after treatment initiation. Trastuzumab consumption from the beginning of the year shows that although no pre-authorization is done, both number of patients and allocated resources